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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,398	10/05/2004	Alexander Maass	10191/3574	3131
26646	7590	06/09/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			NGUYEN, CHUONG P	
			UNIT	PAPER NUMBER
			3663	

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/510,398	MAASS, ALEXANDER	
	Examiner	Art Unit	
	Chuong Nguyen	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 17, 20 and 25-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 18, 19 and 21-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of invention IA in the reply filed on 05/08/2006, in which the applicant believes that claims 15-19, 21-24 are readable upon, is acknowledged.
2. Claims 20, 25-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 05/08/2006.

In addition, it is noted that claim 17 is not directed to the elected invention IA. Claim 17 is directed to the non-elected invention IB (Fig 4 and 5). Therefore, claim 17 has been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a non-elected species.

Drawings

3. The drawings are objected to because Figure 5 does not include reference numbers 400, 402, 404, 406, 408 as described in the specification [0027]. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and

appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15, 16, 18, 21, 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeon (6,487,501) and further in view of Russell et al (6,675,094).

Regarding claim 15, Jeon discloses a method for providing driver information and performing a vehicle intervention when leaving a traffic lane comprising: recording at least one boundary of the traffic lane (col 2, lines 11-13); deriving at least one of the driver information and the vehicle intervention from the at least one boundary of the traffic lane and the track of the vehicle (Fig 1 & 6; col 2, lines 10-24, lines 35-40; col 4, lines 21-24); providing the driver information when the vehicle threatens to leave the traffic lane (Fig 1; col 4, lines 20); and performing the vehicle intervention (i.e. performing automatic driving) when the vehicle

threatens to leave the traffic lane (Fig 1; lines col 4, lines 21-24). However, Jeon lacks the method of determining a track (i.e. a path) of a vehicle based on a driver reaction to be expected in the future. Russell et al teach in the same field of endeavor a path prediction method for a vehicle based on its velocity and yaw rate measurements (Abstract). It would be obvious that Russell et al invention would be concerned with the driver reaction (i.e. accelerate / decelerate for determining velocity; steering movements for determining yaw rate, etc...) in determining a path of a vehicle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a track of a vehicle based on a driver reaction to be expected in the future as taught by Russell et al in the method of Jeon for preventing traffic accident due to the driver inattentiveness and enhance the driver assistance system.

Regarding claim 16, Jeon discloses the steering reaction away from side markings (Abstract; Fig 1). However, Jeon lacks the method wherein the track of the vehicle is determined based on a future steering reaction away from side markings. Russell et al teaches in the same field of endeavor that the track (i.e. estimated path) of the vehicle is determined based on its velocity and yaw rate measurements (Abstract; Summary Of The Invention, col 2-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a track of a vehicle as taught by Russell et al in the method of Jeon for preventing traffic accident due to the driver inattentiveness and enhance the driver assistance system.

Regarding claim 18, Jeon discloses a magnetic sensor capable of detecting the boundary (i.e. lane markers) of a lane (col 2, lines 11-13, lines 25-26) that would be used in place of the

image sensor system (col 1; lines 33-60). It would have been an obvious matter of design choice to use a magnetic sensor instead of a image sensor system to detect the lane boundary since the applicant has not disclosed that the image sensor system solves any stated problem and it appears that invention would perform equally well with the magnet sensor as taught by Jeon.

Regarding claim 21, Jeon discloses the method wherein the vehicle intervention includes an automatic intervention in steering in response to a threatened leaving of the traffic lane (Fig 1; col 4, lines 21-24).

Regarding claims 23 and 24, Jeon lacks the determining of a future track of the vehicle. Russell et al teach in the same field of endeavor the method of determining a future track (i.e. path prediction) of the vehicle based on the course of the vehicle in the past; wherein the course of the vehicle in the past is determined at least one of from at least one of the yaw rate and the steering angle and using the steering movements of the driver (Abstract; Summary Of The Invention, col 2-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the method of determining a future track as taught by Russell et al in the method of Jeon for preventing traffic accident due to the driver inattentiveness and enhance the driver assistance system.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeon as modified by Russell et al as applied to claim 15 above, and further in view of Hiwatashi et al (6,370,474).

Regarding claim 19, Jeon as modified by Russell et al lack the method of determining a left future track of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the vehicle. Hiwatashi et al teach in the same field of endeavor the method of determining a left future track

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of the vehicle and a right future track of the vehicle and comparing the left future track and the right future track to left edge marking and right edge markings of the vehicle (Fig 2 & 3; col 4, lines 23-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the determination of a vehicle tracks and comparison between the tracks and the edge markings of the vehicle as taught by Hiwatashi et al in the method of Jeon as modified by Russell et al for preventing traffic accident and enhance the driver assistance system.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeon as modified by Russell et al as applied to claim 15 above, and further in view of Omry et al (6,756,903).

Regarding claim 22, Jeon as modified by Russell et al disclose the future steering correction by the driver (Jeon – col 3, lines 7-12). However, Jeon as modified by Russell et al lack the method of determining a variable representing attentiveness of the driver wherein the future steering correction by the driver is based on. Omry et al teach in the same field of endeavor the method of determining a variable that represents the driver attentiveness (Abstract; Fig 1, 3, 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the determination of a variable that represents the driver attentiveness as taught by Omry et al in the method of Jeon as modified by Russell et al for preventing traffic accident and enhance the driver assistance system.

8. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

Conclusion

9. The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Nguyen whose telephone number is 571-272-3445. The examiner can normally be reached on 8:00 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CN


JACK KEITH
SUPERVISORY DATE: 2/2/2011